

### DETAILED ACTION

1. This office action is in response to the amendment filed on 10/03/2008. Claims 1 and 5 of Group I have been elected with traverse. Since claim 2 of Group II requires a special search for the specific limitations, claim 2 will not be rejoined with Group I. This election/restriction is made as final.

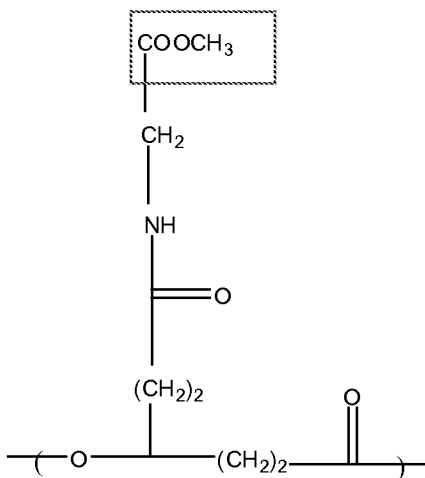
#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

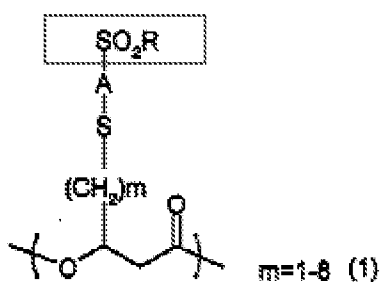
3. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over **Martin et al. (US 6083729 A)** in view of **Kenmoku et al. (EP 1336635 A1)**.

*Martin et al.* discloses species of polyhydroxyalkanoate (PHA) prepared from repeating units (Claim 4), shown as an example of:



The difference in the application is the particular inclusion of the sulfonyl unit in the chain as recited in formula (1) in claim 1.

*Kenmoku et al.* discloses PHA containing sulfonic group as a hydrophilic group or a derivative thereof (sulfonyl unit) introduced for improving melt processeability (motivation, Pg. 8, [0020]), as shown in the end of side chain of the following structure (-SO<sub>2</sub> group, [0023]):



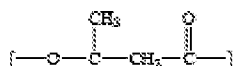
Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated disclosures of *Martin et al.* and *Kenmoku et al.* to develop a PHA containing repeating units as recited in formula (1) in claim 1. The suggestion/motivation would have been to improve melt processeability of PHA.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Martin et al. (US 6083729 A)** in view of **Kenmoku et al. (EP 1336635 A1)** and in further view of **Yamane (PGPUB US 20030088052 A1)**.

Disclosure of *Martin et al.* and *Kenmoku et al.* are adequately set forth in paragraph 3 and are incorporated herein by reference.

*Martin et al.* and *Kenmoku et al.* fail to disclose a PHA copolymer containing repeating units as recited in claim 5.

*Yamane* discloses a PHA containing species of repeating units ([0005]) that reads on claim 5. For example:



*Yamane* further discloses the motivation of using the said repeating units ([0005]) to utilize the biodegradability due to its specificity of the enzyme.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated disclosures of *Martin et al.* and *Yamane* to develop a copolymer of PHA containing repeating units as recited in claim 1 and 5. The suggestion/motivation would have been to enhance the biodegradability of PHA.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANE FANG whose telephone number is (571)270-7378. The examiner can normally be reached on Mon.-Thurs. 8 a.m. to 6:30 p.m. EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4131

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/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

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